

CLAIMS

1. A voice coil insertion jig comprising:

a base;

5 a hollow cylindrical insertion part provided integrally in the lower part of the base;

a plurality of moving pieces provided integrally in the upper part of the base, the outside diameter being formed the plurality of moving pieces being larger than the outside diameter of the insertion part; and

10 a central boss provided above the center of the base, being apart from the moving pieces,

wherein the plurality of moving pieces elastically contact with and hold the voice coil.

2. The voice coil insertion jig of claim 1,

15 wherein the plurality of moving pieces contact adjacently to each other by way of a slit formed in a direction perpendicular to the base, and

each one of the plurality of moving pieces has a horizontal slit on the outer circumference of the base side.

20 3. The voice coil insertion jig of claim 1, further comprising:

a center pin formed in the lower center of the base, projecting downward.

4. The voice coil insertion jig of claim 1,

wherein the central boss is longer than the plurality of moving pieces.

5. A manufacturing method of a speaker using the voice coil insertion jig as set forth in claim 1 comprising the steps of:

a) deforming a plurality of moving pieces elastically to the central boss side, and inserting into a voice coil;

5 b) restoring the elastic deformation, and holding the voice coil in a voice coil insertion jig;

c) inserting the voice coil insertion jig holding the voice coil into a magnetic gap forming a magnetic circuit;

10 d) adhering the inner circumference of a diaphragm to the voice coil, and adhering the outer circumference of the diaphragm to a frame; and

e) deforming the plurality of moving pieces elastically to the central boss side, and extracting the voice coil insertion jig from the magnetic gap.

15 6. A speaker manufactured in the manufacturing method as set forth in claim 5.

7. A voice coil insertion jig comprising:

a base;

20 an insertion part for fitting a center pole of a hollow cylindrical magnetic circuit provided integrally in the lower part of the base;

a plurality of moving pieces provided integrally in the upper part of the base, the outside diameter being formed the plurality of moving pieces being larger than the outside diameter of the insertion part; and

25 a central boss provided above the center of the base, being apart from the moving pieces,

wherein the plurality of moving pieces elastically contact with and hold the voice coil.

8. The voice coil insertion jig of claim 7,

5 wherein the plurality of moving pieces contact adjacently to each other by way of a slit formed in a direction perpendicular to the base, and

each one of the plurality of moving pieces has a horizontal slit on the outer circumference of the base side.

10 9. The voice coil insertion jig of claim 7,

wherein the central boss is longer than the plurality of moving pieces.

10. A manufacturing method of a speaker using the voice coil insertion jig as set forth in claim 7 comprising the steps of:

15 a) deforming a plurality of moving pieces elastically to the central boss side, and inserting into a voice coil;

b) restoring the elastic deformation, and holding the voice coil in a voice coil insertion jig;

20 c) fitting an insertion part of the voice coil insertion jig holding the voice coil into a center pole of a magnetic circuit, and placing this insertion part into a magnetic gap;

d) adhering the inner circumference of a diaphragm to the voice coil, and adhering the outer circumference of the diaphragm to a frame; and

25 e) deforming the plurality of moving pieces elastically to the central boss side, and extracting the voice coil insertion jig from the magnetic gap.

11. A speaker manufactured in the manufacturing method as set forth in claim 10.

5 12. A voice coil insertion jig comprising:

a base;

a center pin formed in the lower center of the base, projecting downward;

a hollow cylindrical insertion part provided integrally in the lower part of the base;

10 a plurality of moving pieces provided integrally in the upper part of the base, the outside diameter being formed the plurality of moving pieces being larger than the outside diameter of the insertion part; and

a boss forming the center pin formed in the lower center of the base, projecting downward, provided above the center of the base, being apart from the moving
15 pieces,

wherein the plurality of moving pieces elastically contact with and hold the voice coil.

13. The voice coil insertion jig of claim 12,

20 wherein the plurality of moving pieces contact adjacently to each other by way of a slit formed in a direction perpendicular to the base, and

each one of the plurality of moving pieces has a horizontal slit on the outer circumference of the base side.

25 14. The voice coil insertion jig of claim 12,

wherein the central boss is longer than the plurality of moving pieces.

15. A manufacturing method of a speaker using the voice coil insertion jig as set forth in claim 12 comprising the steps of:

5 a) deforming a plurality of moving pieces elastically to the central boss side, and inserting into a voice coil;

b) restoring the elastic deformation, and holding the voice coil in a voice coil insertion jig;

10 c) inserting the voice coil insertion jig holding the voice coil into a hole having a center pin provided in a center pole of a magnetic circuit, and inserting the voice coil insertion jig into a magnetic gap formed by the magnetic circuit;

d) adhering the inner circumference of a diaphragm to the voice coil, and adhering the outer circumference of the diaphragm to a frame; and

15 e) deforming the plurality of moving pieces elastically to the central boss side, and extracting the voice coil insertion jig from the magnetic gap.

16. A speaker manufactured in the manufacturing method as set forth in claim 15.